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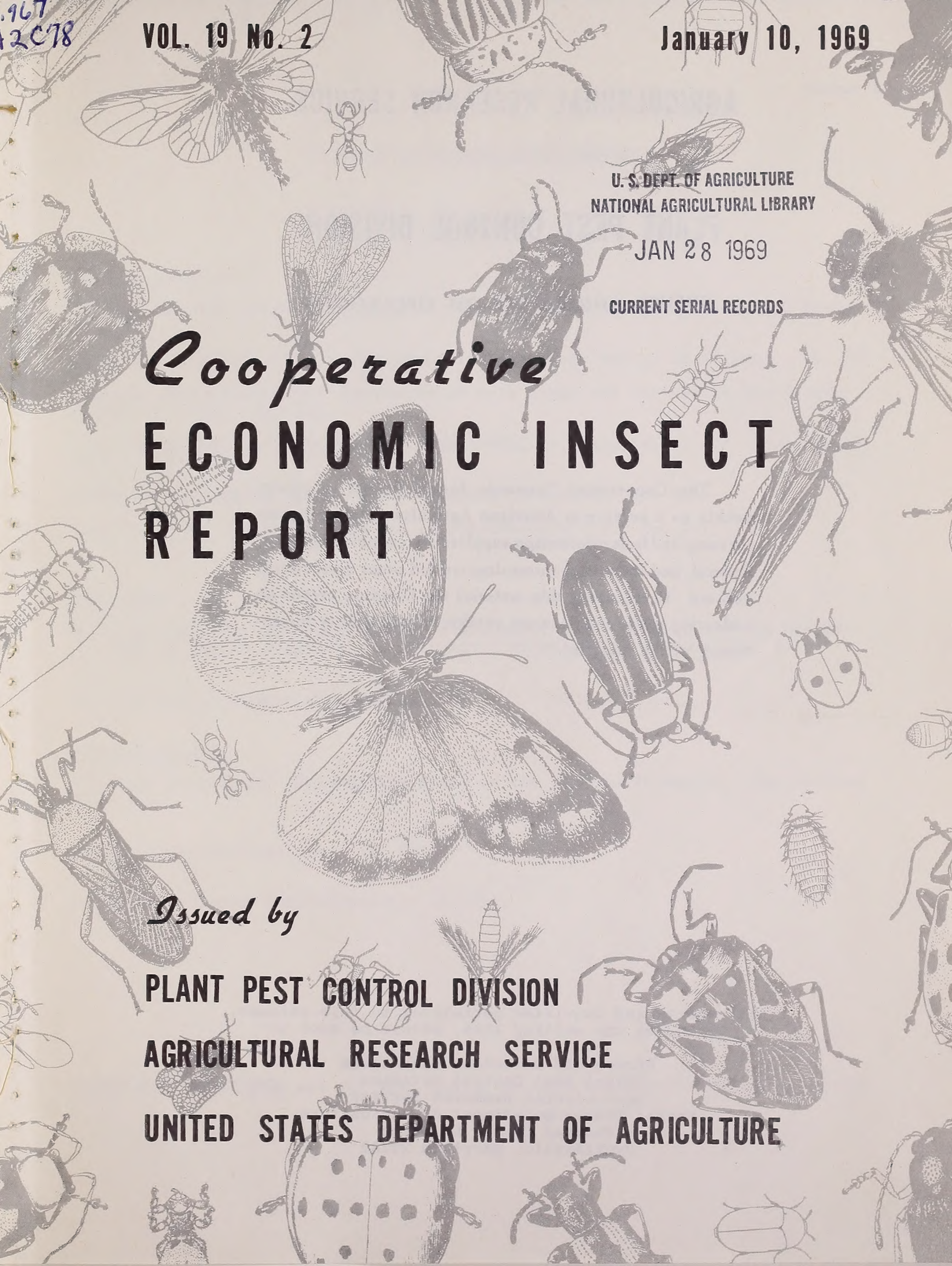

Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

All reports and inquiries pertaining to this release, including the mailing list, should be sent to:

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Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Federal Center Building
Hyattsville, Maryland 20782

Volume 19 January 10, 1969 Number 2

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

NEOTROPICAL CORN BORER widespread on corn in lower Rio Grande Valley of Texas. (p. 19).

GREEN PEACH APHID heavy on sugarbeets in Salt River Valley of Arizona. (p. 20).

CABBAGE LOOPER medium and widespread on cole crops and lettuce in Rio Grande Valley of Texas. (p. 20).

A MICROSPORIDIAN found infecting LARCH SAWFLY in Pennsylvania for first record in U.S. (p. 20).

SOUTHERN PINE BEETLE heavy in southeastern Tennessee. (p. 21).

Only one SCREW-WORM case reported in southwestern U.S. (p. 21).

Detection

New State records include GREENBUG, a MEALYBUG, and a NOCTUID MOTH in Nevada (p. 19); a FLEA in Virginia (p. 21); and a STINK BUG in Missouri (p. 23).

For new county records see page 23.

Special Reports

The 1969 outlook for GRASSHOPPERS based on the 1968 adult survey. See centerfold map.

State Survey Coordinators. (p. 24).

Cooperative Survey Entomologists. (p. 27).

Reports in this issue are for week ending January 3 unless otherwise indicated.

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Grasshopper Adult Survey - Fall 1968 (map) centerfold.

WEATHER BUREAU'S 30-DAY OUTLOOK

JANUARY 1969

The Weather Bureau's 30-day outlook calls for temperatures to average below seasonal normals over most of the Nation with greatest departures over the northwest quadrant. Near normal temperatures are expected to prevail over the Southwest except for below normal in Pacific coastal areas. Precipitation is predicted to exceed normal over most of the Nation, except for near to below normal over the Pacific Northwest, southern Plains, and the extreme Southeast. Owing to the cold temperatures predicted, more frequent than normal snows are indicated in the northern two-thirds of the country and at higher elevations in the West.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the Weather Bureau. You can subscribe through the Superintendent of Documents, Washington, D.C. 20250. Price $5.00 a year.

WEATHER OF THE WEEK ENDING JANUARY 6

HIGHLIGHTS: Bitter cold covered most of the Nation from the Pacific Northwest to the southern Appalachians. Gales and heavy snow combined with the frigid weather in some areas.

PRECIPITATION: Four areas received notable precipitation during the week. Heavy rains fell along the middle gulf coast on December 30 and 31 with New Orleans, Louisiana, receiving 2.55 inches and Mobile, Alabama, 4.99 in the 24 hours ending at 7 a.m., e.s.t., December 31. Heavy snow fell in the Pacific Northwest early in the week with 8 to 15-inch accumulations in the lowlands. Rains late in the week combined with melting snow due to warmer temperatures caused the rivers to rise to near or above flood stage. Gales blowing across the eastern Great Lakes caused heavy snow in western New York. Some areas received 6 to 15 inches. On Wednesday, 14 inches fell at Boonville, New York, in 10 hours. Some throughways and many side roads from Indiana to New York became clogged with snow and highway travel, where possible, became hazardous. A storm along the New England coast produced rain along the coast and 1 to 6 inches of snow inland except 6 to 12 inches in northern Maine. No precipitation or only light sprinkles fell from central and southern California to Oklahoma and western Texas. The northern Great Plains received light snow early in the week and some snow, sleet, and rain over the weekend. The amounts were generally of little importance except that they slowed highway travel. Weather of the week continued on page 23.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

GREENBUG (Schizaphis graminum (In broad sense))* - CALIFORNIA - Light on barley plantings at Kerman, Fresno County. (Cal. Coop. Rpt.). NEVADA - One alate collected from corn at Pahrump, Nye County. Collected by R. Yamashita and D.F. Zoller June 14, 1968. Identified by R.C. Bechtel; confirmed by T. Kono. This is a new State record. Found in October on barley in Nye County and in Clark County for a new county record. One specimen collected on sorghum in Nye County in November. (Nev. Coop. Rpt.). TEXAS - Light in panhandle area. Light on wheat near Levelland, Hockley County. Heavy and widespread at Whiteflat, Motley County, in late December. Many farmers applied controls before cold weather retarded activity. Heavily infested 25 percent of fields inspected. (Green, Pallmeyer). OKLAHOMA - Very light to absent in fields checked in several northwestern and panhandle counties due to below zero temperatures the last of December. (Okla. Coop. Sur.). KANSAS - None on wheat examined in Riley, Pottawatomie, and Shawnee Counties. (Simpson). ARKANSAS - Survey negative in northwest area January 2. (Boyer).

SPOTTED ALFALFA APHID (Therioaphis maculata) - ARIZONA - Ranged 60-1,320 per 100 sweeps of alfalfa at Yuma, Yuma County. (Ariz. Coop. Sur.).

CORN, SORGHUM, SUGARCANE

NEOTROPICAL CORN BORER (Diatraea lineolata) - TEXAS - Widespread on corn in lower Rio Grande Valley. Infested average of 94.7 percent of stalks examined. Ten percent of overwintering Diatraea determined this species. (Schuster).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - KANSAS - Percent infested stalks by county: Coffey 12-52, Anderson 16-24. (Redding).

SMALL GRAINS

AN APHID (Rhopalosiphum padi) - CALIFORNIA - Light on barley plantings at Kerman, Fresno County. (Cal. Coop. Rpt.).

TURF, PASTURES, RANGELAND

A MEALYBUG (Heterococcus pulverarius) - NEVADA - Specimens collected from timothy at Smith, Lyon County, by F.C. Batchelder June 20, 1968. Determined by R.F. Wilkey. This is a new State record. (Nev. Coop. Rpt.).

A NOCTUID MOTH (Heliothis paradoxa) - NEVADA - Larvae on Bermuda grass at Overton, Clark County. Collected by R.P. Johnson May 27, 1968. Determined by G.T. Okumura. This is a new State record. (Nev. Coop. Rpt.).

FORAGE LEGUMES

LYGUS BUGS (Lygus spp.) - ARIZONA - Swept 40 per 100 sweeps at Yuma, Yuma County. (Ariz. Coop. Sur.).

BEET ARMYWORM (Spodoptera exigua) - ARIZONA - Averaged 10 per 100 sweeps on alfalfa at Yuma, Yuma County. (Ariz. Coop. Sur.).

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* According to recent taxonomic studies by L.M. Russell. This aphid on sorghum appears to be this species.

SUGARBEETS

GREEN PEACH APHID (*Myzus persicae*) - ARIZONA - Heavy in many fields in Salt River Valley, Maricopa County. Many damaging inside crowns. (Ariz. Coop. Sur.).

COLE CROPS

CABBAGE LOOPER (*Trichoplusia ni*) - TEXAS - Medium and widespread on cole crops in Rio Grande Valley. Averaged 3.0 eggs and 0.6 larva per cabbage plant. (Schuster).

GENERAL VEGETABLES

CABBAGE LOOPER (*Trichoplusia ni*) - TEXAS - Medium and widespread on lettuce in Rio Grande Valley. Averaged 0.3 eggs and 0.04 larva per lettuce plant. (Schuster).

DECIDUOUS FRUITS AND NUTS

SAN JOSE SCALE (*Aspidiotus perniciosus*) - ALABAMA - Overwintering forms light to heavy on peach and apple trees examined in home orchards and on lawns in Lee County. (McQueen).

OTHER TROP. & SUBTROP. FRUITS

A WEEVIL (*Caulophilus latinasus*) - CALIFORNIA - Larvae taken from avocado nursery stock seeds at Santa Barbara, Santa Barbara County. (Cal. Coop. Rpt.).

ORNAMENTALS

FULLER ROSE WEEVIL (*Pantomorus cervinus*) - CALIFORNIA - Damaging azalea nursery stock at Fallbrook, San Diego County. (Cal. Coop. Rpt.).

APHIDS - CALIFORNIA - *Vesiculaphis caricis* light on azalea nursery stock at Red Bluff, Tehama County. Not widespread as yet. (Cal. Coop. Rpt.). ALABAMA - Many adults and nymphs of *Aphis spiraecola* (spirea aphid) still on established spirea plants in much of Lee County. Most alatae have deposited egg masses and died; eggs 10-50 along many stems in top 2-6 inches of each branch. (McQueen).

CITRUS MEALYBUG (*Planococcus citri*) - CALIFORNIA - Heavy on *Ruellia makoyana* nursery stock in Spring Valley, San Diego County. (Cal. Coop. Rpt.).

A FALSE SPIDER MITE (*Brevipalpus lilium*) - ALABAMA - Heavy buildup again on older azaleas at Auburn and Opelika area, Lee County. Many plants rusty brown and partly defoliated in mass plantings at older homes and some commercial buildings. (McQueen).

FOREST AND SHADE TREES

LARCH SAWFLY (*Pristiphora erichsonii*) - PENNSYLVANIA - The microsporidian *Thelohania pristiphorae* Smirnoff detected in cocooned larvae of *P. erichsonii* collected near Renovo, Clinton County, in July 1968. *T. pristiphorae* determined by W.A. Smirnoff. This is first published record of this microsporidian in the United States. (Drooz). NEW YORK - Typical *P. erichsonii* oviposition injury and feeding by first instars observed on *Larix gmelini* (Dahurian larch) at Cooxrox Forest, Stephentown Center, Rensselaer County, August 11, 1963. Tree species determined by D.B. Cook. This is a new host record. (Drooz).

SOUTHERN PINE BEETLE (Dendroctonus frontalis) - TENNESSEE - Overwintering adults and larvae heavy in forest area low on mountain of Cades Cove in Great Smoky Mountains National Park. This beetle and Ips sp. heavy on Atomic Energy Commission lands at Oak Ridge; salvage operations underway. D. frontalis caused some heavy losses in isolated spots of Roane County near Rockwood and Kingston area. (Applegate, Dec. 23).

A SOFT SCALE (Ceroplastes sp.) - VIRGINIA - Light on sugar and silver maple street trees in city of Alexandria. This is a new host record for State. Heavy infestations on nearby plantings of various shrubs support earlier reports of rapid spread and increase in northern area. (Weidhaas, Dec. 20).

OYSTERSHELL SCALE (Lepidosaphes ulmi) - CALIFORNIA - Heavy on Lombardy poplar tree nursery stock at Watsonville, Santa Cruz County. (Cal. Coop. Rpt.).

LONG-TAILED MEALYBUG (Pseudococcus longispinus) - CALIFORNIA - Heavy on Indialaurel fig (Ficus retusa) in several blocks of street plantings at San Francisco, San Francisco County. (Cal. Coop. Rpt.).

MAN AND ANIMALS

SCREW-WORM (Cochliomyia hominivorax) - One case reported in U.S. December 29, 1968 - January 4, 1969, as follows: TEXAS - Starr 1. Total of 175 cases reported in portion of Barrier Zone in Republic of Mexico December 23-28 as follows: Territorio sur de Baja California 81, Sonora 59, Chihuahua 3, Coahuila 9, Nuevo Leon 10, Tamaulipas 13. Total of 7 cases reported in Mexico south of Barrier Zone. Barrier Zone is area where eradication operation underway to prevent establishment of self-sustaining population in U.S. Sterile screw-worm flies released: Texas 26,568,000; Mexico 25,596,000. (Anim. Health Div.).

CATTLE GRUBS (Hypoderma spp.) - KANSAS - Infestations in slaughtered cattle ranged 4-20 percent in southwest area during September, October, and November. Loss estimated from $2,000 to $6,000 per month at 2 packing plants. (Simpson). OKLAHOMA - H. lineatum (common cattle grub) moderate on Craig County cattle. (Okla. Coop. Sur.).

STABLE FLY (Stomoxys calcitrans) - MISSISSIPPI - Active in stalls of penned Hereford bulls in Oktibbeha County; average of 6-10 flies per stall.(Dinkins, Dec. 27).

A FLEA (Chaetopsylla lotoris) - VIRGINIA - Female collected on gray fox in Amherst County November 28, 1968. Determined by J.G. Humphreys. This is a new State record. (Amos).

MISCELLANEOUS WILD PLANTS

A WEEVIL (Hypera compta) - MISSOURI - Collected at Amazonia, Andrew County, by R.E. Munson May 9, 1968. Collected at Carrollton, Carroll County, by B. Puttler May 9; determined by R.E. Warner. Later collected at Clifton Hill, Randolph County, by B. Puttler and S. Thewke. Polygonum sp., host at all collection sites. These are new county records. (Munson).

A WEEVIL (Hypera eximius) - MISSOURI - Collected on Rumex sp. at Amazonia, Andrew County, by R.E. Munson and at Salisbury, Chariton County, by B. Puttler and S. Thewke. These are new county records. (Munson).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

CARIBBEAN FRUIT FLY (Anastrepha suspensa) - FLORIDA - Collected larvae from fruits of calamondin at Georgiana December 19 and adults at Melbourne and Eau Gallie December 18 in Brevard County. (Levan). Adults collected at Nokomis, Sarasota County (Hiatt, Dec. 16), and at Tampa, Hillsborough County (Krouse, Dec. 13).

IMPORTED FIRE ANT (Solenopsis saevissima richteri) - TEXAS - Adults light at Groveton, Trinity County. Collected by H.J. Henderson and W.T. Williamson December 11. Adults light at Wells, Cherokee County. Collected by W.E. Jackson and C.M.E. Lovett December 16. Determined by D.R. Smith. These are new county records. (PPC).

PINK BOLLWORM (Pectinophora gossypiella) - NEW MEXICO - Twenty-seven larvae from 177 bales of cotton on lint cleaners from 6 gins in southwest area. (Hare). Cocoons on cotton roots in Dona Ana County much lighter than at same period in 1967. Heaviest infestation in southern Dona Ana County averaged 3 cocoons per 10 feet of row on December 30. Of 29 cocoons examined, 15 larvae were alive and 14 dead. (Campbell, Nielsen).

HAWAII INSECT REPORT

Turf, Pasture - A GRASS WEBWORM (Herpetogramma licarsisalis) damage moderate to Kikuyu grass pasture at Kaupakulua, Maui; larvae and damage light in Kikuyu grass pasture at Ulupalakua. On Oahu, larvae per square foot ranged 2-5 in infested lawns and parks at Honolulu, 2-7 in lawns and pastures in windward area, and 1-4 in lawns at Wahiawa. (Ah Sam, Nakao).

General Vegétables - CARMINE SPIDER MITE (Tetranychus cinnabarinus) trace to light on tomatoes, eggplants, snap beans, and cucumbers in most fields throughout Oahu. Will remain low until spring. (Yamamoto). GREENHOUSE WHITEFLY (Trialeurodes vaporariorum) adults heavy on 9 acres of tomatoes at Kona, Hawaii Island, at 1,000 to 1,500 feet elevation. Continues moderate to heavy on snap beans in several lowland fields on Oahu. (Nakao, Sato).

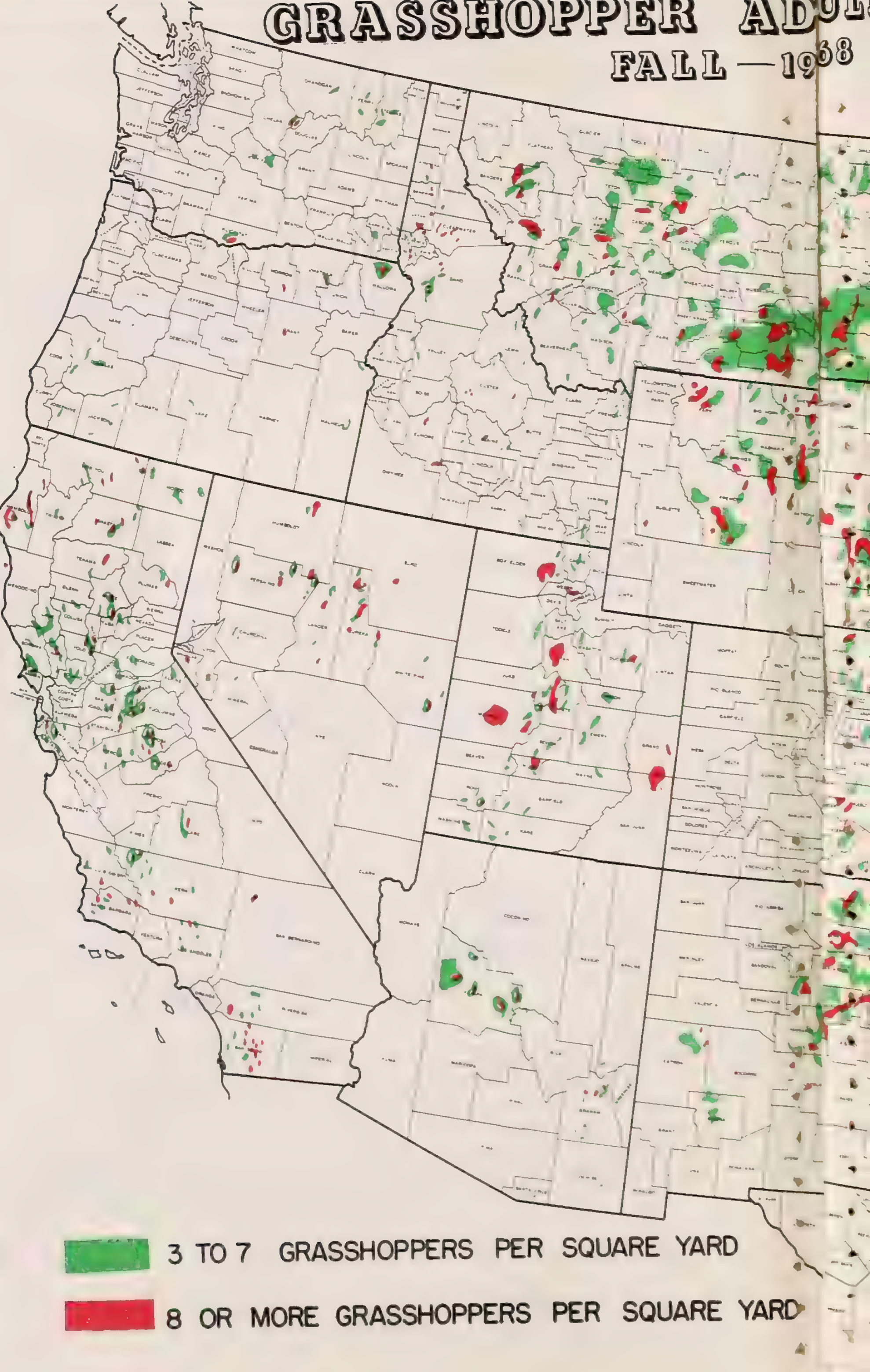
Fruits - Heavy infestations of BARNACLE SCALE (Ceroplastes cirripediformis) spread from 10 to 30 acres on passionfruit farm at Kahului, Maui. Parasitic EULOPHID WASPS (Aneristus ceroplastae and Tetrastichus sp.) very active in rest of lightly infested 120 acres. (Miyahira). A MEALYBUG (Pseudococcus obscurus) remains light, moderate in few areas, on 150 acres of passionfruit at Kahului, Maui. Larvae and pupae of a LADY BEETLE (Cryptolaemus montrouzieri) numerous where mealybug infestation moderate. (Miyahira).

Beneficial Insects - Adults of a WATER SCAVENGER BEETLE (Sphaeridium scarabaeoides) heavy in pastures at Kalaheo, Kauai; as many as 12 per dung heap. Introduced from Germany in 1909 to help control horn fly (Haematobia irritans) and other dipterous maggots. (Sugawa).

Miscellaneous Insects - CLUSTER FLY (Pollenia rudis) adults heavy in pastures, swarming in Kona and North and South Kohala districts on Hawaii Island; causing annoyance by entering homes. (Yoshioka, Kobayashi).

GRASSHOPPER ADU

FALL — 1968


🟩 3 TO 7 GRASSHOPPERS PER SQUARE YARD
🟥 8 OR MORE GRASSHOPPERS PER SQUARE YARD

INSECT DETECTION

ULT SURVEY

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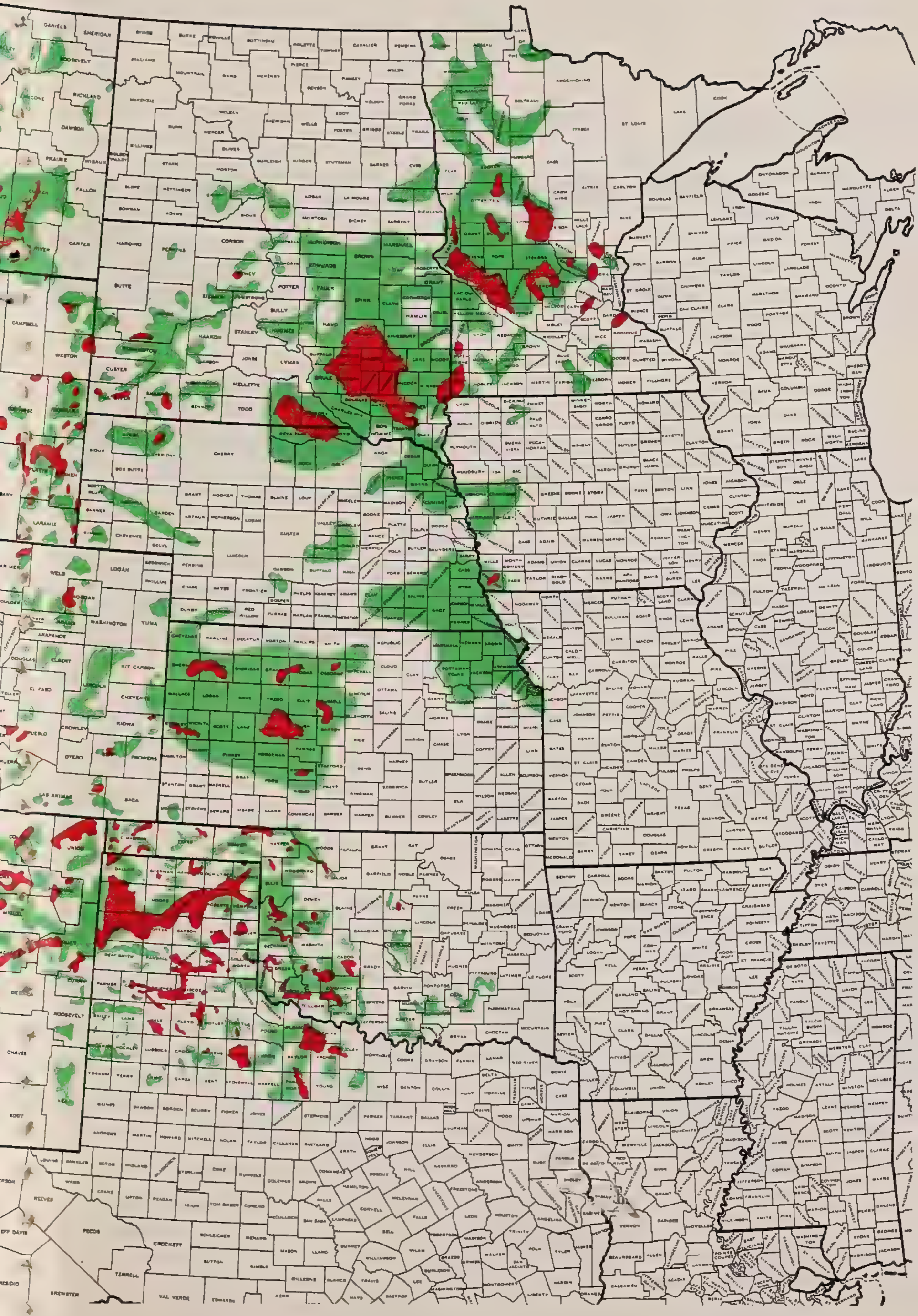
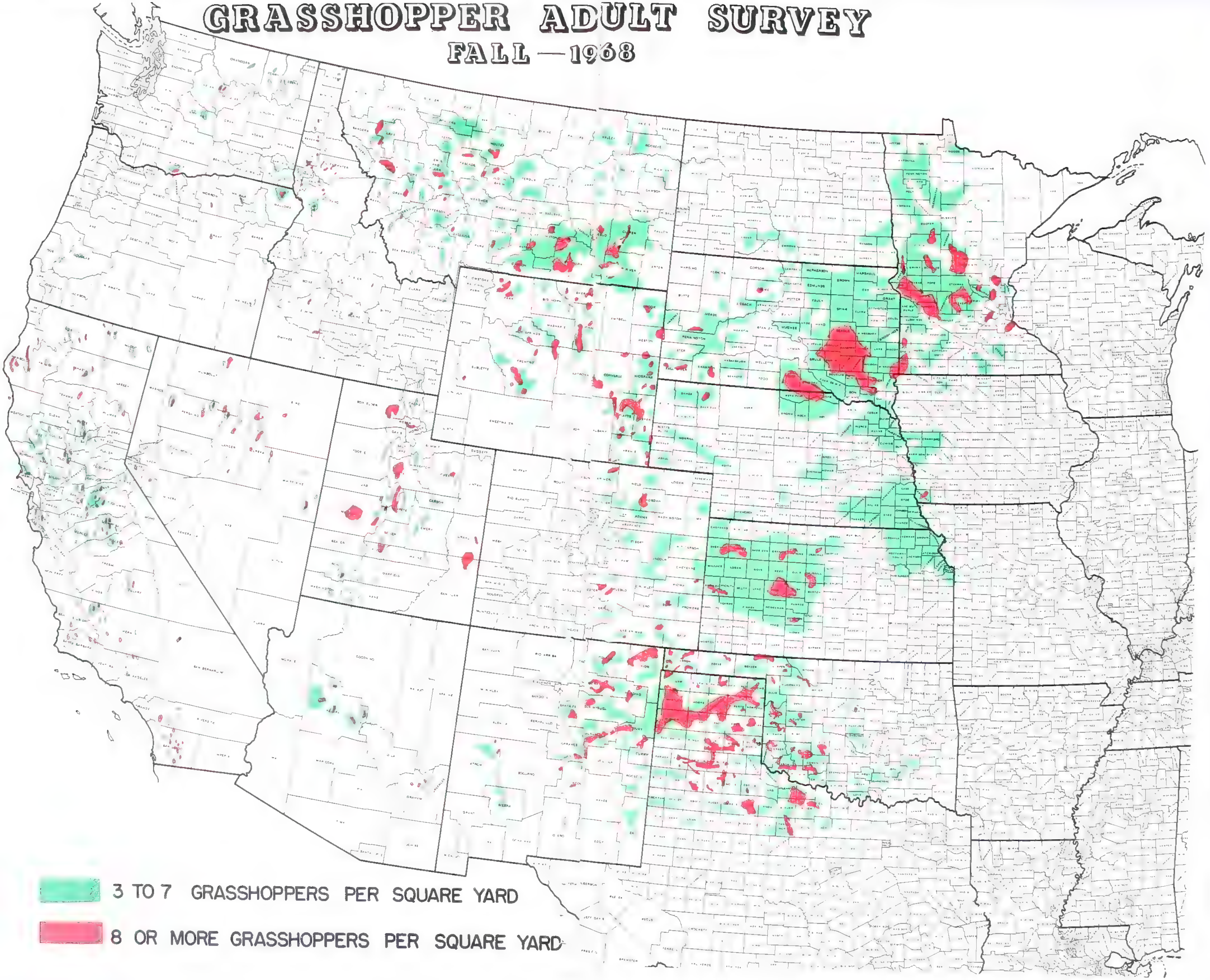


GRASSHOPPER ADULT SURVEY

FALL — 1968


🟩 3 TO 7 GRASSHOPPERS PER SQUARE YARD
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UNITED STATES DEPART
AGRICULTURAL R
PLANT PEST CO

TO COOPERATORS:

This map is based upon the results of cooperative grasshopper adult surveys made during the an area, and indicates the potential severity of infestations for 1969. Nymphal surveys, made in t necessary in 1969

Control on grasshopper infested croplands will be handled by the farmers with technical ass in 15 Western and Midwestern States. Areas on the map are diagrammatic. Within these areas

RANGELAND GRASSHOPPER INFESTATIC

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REGION AND STATE	LANDOWNERSHIP – ACRES		TOTAL ACRES
	Private and State	Public Domain	
CENTRAL			
Kansas	10,000	---	10,000
Nebraska	10,000	---	10,000
WESTERN			
Arizona	5,000	17,500	22,500
California	216,070	16,367	232,437
Colorado	162,000	20,000	182,000
Idaho	34,500	88,000	122,500
Montana	563,400	465,300	1,028,700
Nevada	62,225	69,110	131,335

The survey was planned and performed by the Plant Pest Control Division, Agricultural Research S

ENT OF AGRICULTURE
EARCH SERVICE
ROL DIVISION

ate summer and fall of 1968. The survey reveals where and how many grasshoppers infest ; spring, determine population densities, and indicate those areas where control may be

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S – ACREAGE BY REGIONS, FALL 1968

N IN RED)

REGION AND STATE	LANDOWNERSHIP – ACRES		TOTAL
	Private and State	Public Domain	
New Mexico	1,431,180	78,000	1,509,180
Oregon	23,400	1,200	24,600
Utah	107,050	17,100	124,150
Washington	16,000	4,000	20,000
Wyoming	927,720	236,580	1,164,300
SOUTHERN			
Oklahoma	687,000	---	687,000
Texas	4,093,860	---	4,093,860

ice, in cooperation with various State agencies concerned.

GPO 976-689

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
PLANT PEST CONTROL DIVISION

TO COOPERATORS:

This map is based upon the results of cooperative grasshopper adult surveys made during the late summer and fall of 1968. The survey reveals where and how many grasshoppers infest an area, and indicates the potential severity of infestations for 1969. Nymphal surveys, made in the spring, determine population densities, and indicate those areas where control may be necessary in 1969

Control on grasshopper infested croplands will be handled by the farmers with technical assistance from Division and State personnel. The infested rangeland areas total 9,362,562 acres in 15 Western and Midwestern States. Areas on the map are diagrammatic. Within these areas infestations may be solid or spotted.

RANGELAND GRASSHOPPER INFESTATIONS – ACREAGE BY REGIONS, FALL 1968

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The survey was planned and performed by the Plant Pest Control Division, Agricultural Research Service, in cooperation with various State agencies concerned.

GPO 976-689

INSECT DETECTION

New State Records

A STINK BUG (Banasa euchlora) - MISSOURI - Moving into a Camden County residence for overwintering. Collected by W.S. Craig and R.E. Munson December 31, 1968. Determined by W.S. Craig. (Munson).

GREENBUG (Schizaphis graminum) - NEVADA - One alate on corn at Pahrump, Nye County. Collected by R. Yamashita and D.F. Zoller June 14, 1968. Identified by R.C. Bechtel; confirmed by T. Kono. (p. 19).

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IMPORTED FIRE ANT (Solenopsis saevissima richteri) - TEXAS - Cherokee and Trinity Counties. (p. 22).

LIGHT TRAP COLLECTIONS

FLORIDA - Gainesville - 12/27-1/2, BL - Armyworm (Pseudaletia unipuncta) 3, black cutworm (Agrotis ipsilon) 7, granulate cutworm (Feltia subterranea) 8, yellow-striped armyworm (Prodenia ornithogalli) 3.

Weather of the week continued from page 18.

TEMPERATURE: Frigid arctic air gripped much of the Nation during the past week. Subzero cold invaded the Cascades in Oregon and Washington on Wednesday, across the northern Rockies and northern Great Plains to the Great Lakes on several days, as far south as the Ozark Mountains in Missouri on the 4th and in the southern Appalachians on the 5th. Moscow, Idaho, airport registered 50° below zero on December 30, this being the coldest temperature ever recorded in Idaho in December. Oregon reported the coldest weather in 40 years on December 30 and 31. Subzero temperatures were recorded in more than 30 States and most of those States averaged 12° to 21° below normal. Two warmer-than-normal areas were noted. A warming trend in Nevada produced above-normal average temperatures and Chinooks on the eastern slope of the central Rockies on January 1 warmed the nearby plains to the high 50's and low 60's. (Summary supplied by Environmental Data Service, ESSA.)

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